

ROCKY FLATS PLANT  
EMD PROJECT MANUAL  
OPERABLE UNIT NO. 1  
VOLUME 3

Manual No.: 21100-PM-OU-01.0  
Procedure No.: Table of Contents, Rev 1  
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Effective Date: 12/19/91  
Organization: Environmental Management

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| PMP-1.4              | Project Management Plan for the 881 Hillside IRA, Construction Phase IIB, Water Treatment Facility Collection and Discharge System, Operable Unit No. 1 | 0              | 10/31/91              |
| QAA-1.4              | Quality Assurance Addendum for Phase IIB Construction 881 Hillside (OU-1) Remedial Action, Collection and Discharge System                              | 0              | 10/31/91              |
| SUI-OU 01.1          | French Drain Excavation Control   | 0              | 11/01/91              |
| DCN 91.01            | New excavation inspection and entry, and slope stability monitoring requirements  | 0              | 12/19/91              |

ADMIN RECORD

REVIEWED FOR CLASSIFICATION/UCM

By [Signature]

Date 1/20/92

A-OU01-000282

# ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

Procedure Number 21000-SUI-OU 01.1B2 RO

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|--|---|---|
| Title<br>French Drain Excavation Control | Date<br>12-19-91  | DCN Number<br><del>21000-SUI-OU-01.1B2</del> 9101 |
| Expires <u>3-19-92</u>                   | Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |   |
| Scope Limitation <u>None</u>             |   |   |

| Item Number | Page | Step or Paragraph              | Changes<br>(Use DCN CONTINUATION SHEET for Additional Space) |
|-------------|------|--------------------------------|--|
| 1           | 2    | insert new section 4.4 and 4.5 | For text, see attached.                                      |
| 2           | 3    | insert sub-section 5.1         | For text, see attached.                                      |
| 3           | 3    | section 5.8 insert new         | For text, see attached.                                      |

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

New excavation inspection and entry, and slope stability monitoring requirements.

| Concurrence                     | Organization        | Req              | Date     | Concurrence  | Organization     | Req                                  | Date     |
|---------------------------------|---------------------|------------------|----------|--|------------------|--------------------------------------|----------|
| Verbal OK<br>S. Woolfolk        | QAPM                | X                | 12/19/91 | MCBmaster  | User             | X                                    | 12-23-91 |
| [Signature]                     | FE IS               | X                | 12/23/91 | Mr. R. [Signature]   | AREA CONSTR. MGR | X                                    | 12-23-91 |
| [Signature]                     | IS FE               | X                | 12-23-91 | LA [Signature]   | IND. HYG.        | X                                    | 12-23-91 |
| [Signature]                     | FPM EXC. SPECIALIST | X                | 12-23-91 | [Signature]  | H & S            | X                                    | 12-23-91 |
| Approval of Responsible Manager |                     | Date<br>12-23-91 |          | Is Posting Req'd?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                  | If Yes, By What Date?<br>Date Posted |          |

## ENVIRONMENTAL RESTORATION PROGRAM

Single Use Instruction for Operable Unit No. 1, Phase IIB Construction

Document No. : SUI-OU01.1, Rev. X000

Effective Date : 12/18/91

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### 1. Insert new Section 4.4

4.4 The EG&G Project Manager (EG&G PM) shall ensure that adequate slope stability indicators are installed in excavations greater than 10' vertical in depth. The EG&G PM will obtain concurrence from the competent engineer/geologist to determine the location and quantity of indicators required.

4.4.1 Slope stability indicators shall be installed a maximum of 25' on center. Wood or steel stakes shall be aligned along the face of the slopes by use of a transit. Stakes shall be driven to a minimum depth of 24 inches. A string line will be run between stakes along the entire length of the excavation. Additional stakes will be driven in slump features as directed by the engineer/geologist.

4.4.2 The slope indicators will be used as an aid in identifying potential slope instability. Inspection may be made by any project personnel at any time. Inspection of the slope indicators will take place on a continuous basis by the construction contractor field engineer. Additionally, the indicators will be inspected in the morning prior to start of work, and several times during the day by the competent engineer/geologist. Resolution of potential hazards shall be completed at the time of the daily inspection (refer to Section 5.1). Document findings on Attachment 2, "Daily Excavation Task Report".

4.5 Personnel shall not enter the excavation in areas where the bedrock keyway portion of the excavation has vertical sides in excess of four feet.

### 2. Insert between subsections 5.1 and 5.2.

5.1.1 Each day prior to personnel entry into the excavation; the excavation specialist, the cognizant Health and Safety Representative (Construction Safety), Construction Contractor Project Manager (CCPM), Excavation Subcontractor Foreman, EG&G Construction Coordinator or their designees, and a competent Engineer trained in Geology designated by the EG&G Project Manager will accompany the EG&G Project Manager during the Excavation Inspection.

5.1.2 Upon completion of the inspection, any special concerns or precautions which affect the activities for the day will be noted in writing on the "Daily Excavation Task Report", attachment Number 2. All attendants will initial the report. If no concerns are identified, inspection results will be documented.

5.1.3 A minimum of Three (3) EG&G, and one (1) construction subcontractor personnel are required to initial the "Daily Excavation Task Report" prior to entry. Contractor activities will be strictly controlled by EG&G Construction Coordination.

5.1.4 The cognizant Health and Safety Representative or Excavation specialist will sign off the Rocky Flats Excavation Permit Number 101-10-16-91. Personnel Entry into the excavation may begin only after this permit is signed off.

3. Insert Section 5.8.

5.8 The excavation shall be monitored by the competent engineer/geologist during the all excavation activities. All blocks formed by intersecting structural discontinuities which have the potential to move shall be identified by the engineer/geologist and "flagged" immediately according to the following procedure.

1. The engineer/geologist shall notify the CCPM, the EG&G PM and Construction Coordinator or designees. The CCPM will immediately remove personnel from the excavation.

2. The "Danger Zone" shall be staked with red caution flags by the engineer/geologist and documented. The "danger zone" is defined as the outer boundaries of the slide block glide plane.

3. All personnel shall be restricted from entering the excavation in the "danger zone".

4. The EG&G PM will issue a Field Changer Order to the CC (construction contractor) to excavate and remove the slump block. Upon removal of the slump block the "danger zone" must be designated as "safe-to-enter" by the H&S representative or Excavation Specialist. Verification of "Safe-to-enter" by the H&S representative or the excavation specialist shall be added to the Daily Excavation Task Report, signed, and dated with a time noted for safe entry.

Environmental Restoration Program  
Single use instruction for  
Operable Unit No. 1 Phase IIB  
Construction

Manual: 21100-PM-OU-01-0 <sup>REV</sup> 03  
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Attachment 2

U.S. DEPARTMENT OF ENERGY ROCK FLATS PLANT

Page \_\_\_\_ of \_\_\_\_

Date: \_\_\_\_\_

DAILY EXCAVATION TASK REPORT

Special concerns or cautions:

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Excavation is safe to enter:

Safe for Reentry

Excavation Specialist: \_\_\_\_\_

\_\_\_\_\_

H&S Representative: \_\_\_\_\_

\_\_\_\_\_

Construction Coordinator: \_\_\_\_\_

EG&G Project Manager: \_\_\_\_\_

Construction Contractor Project Manager: \_\_\_\_\_

Excavation Subcontractor Foreman: \_\_\_\_\_

Engineer/Geologist: \_\_\_\_\_